Remarks of

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I. INTRODUCTION

Good morning. It's a pleasure to be with you to kick off MSTV's annual conference on digital television.

As we sit today to discuss digital television, the Federal Communications Commission presides over a communications industry in transition. Nearly every sector within the communications industry is confronting dramatic industry-changing trends—migrations if you will. And, it is doing so at a time of great economic upheaval. These are tough days to be in the communications game.

The challenges are numerous and multi-dimensional: tough capital markets; changing market structure; new forms of competition; fractured consumer interests; and above all, technological disruption. This technical dimension is, to my mind, the most central change from which so many of the others stem.

Every communications sector is embarked on an unavoidable journey—migrating to digital architecture in order to provide the services of the future. These services will be marked by greater personalization of content; diminishing significance of time and place for communicating, informing and entertaining the consumer; and less centralized control of services.

No communications industry is exempt. Traditional telephone providers must migrate from copper cages to digital architecture in order to lower costs to address greater competition and to provide new broadband data services that consumers will demand. Cable is deploying fiber architecture that will allow it to meet the capacity challenges faced by satellite and to offer more of the digital and interactive services, as well as internet and data services, that consumers are beginning to want and expect. Wireless companies have made the switch to digital systems, but are just now starting to focus on the kinds of new and novel services that can run over those platforms. Radio is just starting to introduce new products as they set foot on the digital shore. Internet radio, satellite radio and the new IBOC standard are beginning to arrive.

And then there is free over the air television.

Every communications sector has a leasehold on the digital land of plenty. Their slice of the digital future is dependant on how well that real estate is developed and utilized. Your little corner of digital earth is Digital Television and HDTV. It is your clear chance at a robust future.

II. <u>Do Not Be Fooled by the Current Upheaval</u>

The dot.com craze of the late 1990s popped so loud it could be heard around the world. It was followed by an even more spectacular decline in the telecommunications markets as the fortune tellers' predictions of infinite bandwidth, back-of-the-napkin business models and never-can-loose investing all proved a dream. While fortunes were lost, many—some of you, no doubt—could not hide your giddiness. We were a bit tired of 26 year old millionaire phenoms, clad in khaki, denim and soft-soled shoes, preaching the digital future like a messiah come to show us the errors of our misguided ways.

Some of you breathed a big sigh of relief. "Ah ha,!" you were heard to exclaim, "these "digital.coneheads" were not invincible after all." "They have been put back in their place," you cheer as you fetch your old ties out of the closet and ship them off to the cleaners. Nothing like the tried and true old business you grew up with. "Digital fad, who needs it." Smugly, you think about putting on the three-piece suit, trading in the pea green VW bug for an Olds 98, and hey, maybe even throwing out the computer altogether and using the old slide rule just for kicks. "Happy Days are Here Again."

Think again. Please, for the sake of everyone around you, leave the Aqua Velva and the brown leisure suit in the past.

It would be a grave error to see the present set back in digital life as either a validation of the old ways, or a rejection of digital change. Current economic conditions, discredited internet business plans and other signs mistakenly might give that impression.

What we are witnessing, instead, is merely the classic pattern of volatile technological change. Rather than becoming complacent about the imperative of change, we must prepare for the inevitable rebound that will take us further into the future. We have not been given a reprieve from change, for history tells another story.

Brian Arthur has identified five technology revolutions over the past few centuries, beginning with the Industrial Revolution and ending with the current Digital Revolution. He found that each followed a specific pattern.

At first a new and little-noticed technology "cluster" is introduced, and technical people start small companies based on the new ideas. These small companies compete intensely in a turbulent "start-up" phase. As successes build, the lure of extraordinary profits leads to overspeculation and eventually a crash.

But the interesting thing is that after the crash, the technology enters into a period of sustained build-out or a "golden age," during which it becomes the engine for growth for the economy.

In the final phase, the technology is mature. It has saturated its possibilities and complacency sets in. The economy becomes ripe for the next revolution.

Consider the railroad revolution Arthur describes in Britain beginning in about 1825. By the 1840s, improvements in rail technology brought about a full-scale railroad mania. Queen Victoria made her first rail trip in 1842 and declared she was "quite charmed by it."

Suddenly, railways became fashionable. Entrepreneurs rushed in. Railway valuations soared. Fortunes were made. New railway lines were built to connect little-known towns to other little-known towns. People poured their savings into railway stock. And why not? It looked like a sure thing. That is, until reality set in and railway shares began plummeting. By 1847, railway companies had lost 85% of their value and several hundred had folded. Sound familiar?

But again, the important observation Arthur makes is that it wasn't the end of the railway revolution. Most of the growth in railroads occurred *after* the initial bubble had burst. In 1845, before the crash, there were 2,148 miles of railway in Britain. By 1910, there were 21,000 miles. The great majority of the railway build-out occurred *after* the speculative mania had passed.

If Arthur is right, the digital revolution is struggling through the aftermath of the initial speculative crash, but its best days -- its golden age -- are yet to come.

III. THE DTV MIGRATION IS REGAINING STEAM

In the five years that I have been on the Commission, I have heard a great deal of grumbling about the DTV transition: "It is a great government give-away;" "Consumers do not want it;" "It is an unnecessary industrial policy;" and "It's too expensive with little return."

The cold truth, however, is that we have no choice—not just because Congress has mandated it (which is reason enough) but because the trends in technology and the forces of change will ultimately demand it of any provider that hopes to be relevant in the digital future.

The Commission itself has embraced the change. We recognized last April that the transition had to be driven forward—to satisfy the wishes of Congress, to meet the expectations of consumers, and, most importantly, to advance free television's future—perhaps even to ensure its survival.

Consequently, we took up an aggressive leadership role to assist in bringing the transition home.

We began working with Congressman Tauzin and other key members of Congress to reenergize the dialog around solutions that would move things faster. Subsequently, we crafted a voluntary plan to speed the transition and I am proud to say that industry has responded. We called on the top four networks and HBO and Showtime to provide consumers with highdefinition or value added DTV programming during prime time. We called on broadcast licensees to pass through and promote network DTV programming. We asked cable operators and DBS operators to carry more digital programming services and to market those services, and to allow consumers to access that content. And we called on the equipment manufacturers and retailers to produce the devices that will allow consumers to view digital programming.

We have not stopped there. We have used our offices to keep pressure on all segments of the industry to find solutions to clearing DTV roadblocks. We are actively and aggressively engaged in matters involving equipment compatibility, copyright protections, and carriage obligations, just to name a few. Moreover, we have used our power to mandate change when an industry could not - or would not- come to a solution. We will not fail to act to keep things moving.

Comparing today with where we were one short year ago, we see great strides made toward getting to the digital side of television's migration.

- High definition content on the broadcast networks is up about 50% during primetime.
- There's more HD content on cable and satellite, such as Discovery's 24-hour HD channel. Premier sporting events like the Olympics and the NCAA Final Four are broadcast in HD.
- More HD sports are on the way. ESPN HD will launch next April. Monday Night Football will be in HD next year, as will the Super Bowl, the NBA Finals and the NHL Stanley Cup.
- Hundreds more stations are on the air in digital. Last year at this time, we had about 200 stations on the air. Now we have over 550. In the top 30 markets, which cover 54% of TV households, 113 of 119 top-four network affiliates are on the air with DTV. According to some figures, DTV signals are now transmitted in markets covering 91.9% of households.
- Cable is coming on board. The ten largest cable operators (representing more than 85% of subscribers nationwide) have agreed to carry HD programming and deploy HD-capable set-top boxes in the near future.
- We now have a DTV tuner mandate in place, so that consumers can be assured that their television sets will go on working in the digital world just as they do today. And we adopted a phased-in requirement starting with the largest sets, so the price impact on consumers would be minimized.

Even where challenges remain, we have made much progress this year.

• On "plug and play" cable compatibility, the basic technical standards are now largely complete. The cable and CE industries are working to resolve the remaining business issues, and they're making significant progress. Panasonic's announcement last week that it signed the PHILA agreement is an extremely encouraging sign.

• On the "broadcast flag" copy protection, the various industries have worked to narrow their differences over the past year. Last August we initiated a proceeding to determine whether and how the Commission should issue rules in this area.

So to paraphrase President Reagan, "Is the DTV transition better off today than it was a year ago?" The answer is a resounding "yes."

But it will take some time before the impact of DTV is fully felt. Look at DVDs -- a tremendous success story, now in 31 million homes and rising fast. Yet studios are still learning how to develop digital content for the DVD market. For instance, the studios are beginning to plan the DVD "extra features" up front, as an integral part of the process, rather than simply as an afterthought once the movie is finished.

Eventually, digital will change television in fundamental ways. It will change the way stories are written and told. It's a learning process, a re-wiring of our analog brains.

Digital is simply a different species than analog.

Digital is also changing the distribution business – not that I have to tell you. You are all -- I hope -- operating two transmitters -- one analog and one digital -- and experiencing the differences first-hand. One of the major differences is the digital "cliff effect." Unlike analog, with digital you either get a perfect picture or you get a blank screen. There is no gradual degradation. That's a challenge for you and it's a challenge for equipment manufacturers to ensure that consumers do not lose service as the transition proceeds.

Cable and satellite distribute their products digitally as well. Satellite has always been all-digital, and cable has been engaged in a massive digital upgrade effort. Up to now, cable has used digital technology primarily to deliver more channels to subscribers. But now, as I mentioned earlier, the ten largest cable operators are beginning to use digital technology to provide high definition services as well.

And again, broadband platforms, from cable modem to DSL to fixed wireless to satellite, are proliferating—allowing ever-expanding, diverse digital programming to reach consumers.

Manufacturers, of course, must completely retool for digital. It's both a major challenge and a huge opportunity for the CE industry. Given the highly competitive nature of the industry, I have every confidence that they will be successful.

The final link in the chain is the retailers. Retailers must train their staffs and redesign their space to sell digital. And they must find a way to get HD content onto the sets on the display floor. If a consumer is shopping for a high definition set, they should be able to see high definition content. DVDs are good, but they're not HD.

Consumers, too, are beginning to embrace the digital television.

I have no doubt that we have a major consumer education effort in front of us. But I also think that when the pieces of a transition come together – as they are now doing – that can happen quickly.

There are some positive signs that digital television is beginning to penetrate the public consciousness.

- TV commercials for retailers and manufacturers now specifically target the DTV market
- Wal-Mart is rolling out HDTV in 1,500 stores nationwide.
- USA Today notes which shows are in HD in its TV listings, and programs increasingly brand their shows with HDTV labels.
- According to CEA, as of September there has been an increase of DTV Set and Monitor sales of over 77% from last year this time, with 270,000 units sold just in the month of September of this year.

These are all small but important signs that market forces are beginning to take hold. Real businesses now think they can make real money marketing digital television to the American public.

We are starting to see the synergy of all these segments and I believe DTV will begin to accelerate exponentially in the next year or so.

V. CONCLUSION

We're not there yet, but the pieces of the puzzle are starting to come together. When that happens, we'll finally have the content, the distribution and the equipment necessary to shift the transition into high gear.

We are where we are. There is no turning back and no retreat.

At the FCC, we will lead guided by pragmatism, but backed up by regulatory action that we will not hesitate to employ where necessary.

How you handle this transition and how creatively you embrace the challenge will determine whether free TV prospers, or indeed whether it survives.

It's time to redouble our efforts. This transition is only as strong as the weakest link in the chain.

To end where this conference begins, "Digital Television: The Time Is Now."

Thank you.